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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/981,519	03/17/1998	JOHANN PFEIFFER	032287-001	8175

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EXAMINER
NGUYEN, STEVEN H D

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 05/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 08/981,519	Applicant(s) PFEIFFER, JOHANN	
	Examiner Steven HD Nguyen	Art Unit 2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 May 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *2-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. The amendment filed 10/18/2001 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

Fig 3.

Paragraphs of page 6, lines 12, page 7, lines 4 and page 9, lines 22.

Applicant is required to cancel the new matter in the reply to this Office Action.

2. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 2, 8-9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grude (USP 5619505) in view of Yong (IEEE).

As claims 8-9 and 11, Grube discloses a method of modulating and demodulating a digital data by using DMT for bidirectional data transmission via two wire line "Fig 9, Ref 162 is a twisted pair wire" in time dision multiplexing (See Fig 6-8, Ref 122 and 124). However, Grude

fails to disclose a frame, which is divided into the uplink and downlink slots, and a time management unit for enabling the transmitter or the receiver. In the same view of endeavor, Yong discloses a time division duplex having a single frame which is divided into the unbalance uplink and downlink slots and a time management unit for enabling the transmitter or receiver to transmit or receiving information on a single frame (See Page 571, left col. Second paragraph and Page 572, left column).

Since, Grude suggests a method of using DMT transceiver for full/half duplex by coupling a time division multiplex frame into a DMT transceiver (See col 3, lines 32 and col 11, lines 30-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a time division duplex having a time management unit for toggling between the transmitter and receiver as disclosed by Yong's system into Grude's system. The motivation would have been to reduce the leak signal from a transmission side to a receiving side.

As claim 2, Grude and Yong do not disclose a number of time slots in a frame are 30 and K is 1. However, it would have been obvious to one skill in the art to divide a frame into the transmitted and received time slots such as the number of time slots divide into any numbers and using any number time slot for transmitted data.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grude and Yong as applied to claim 8 above, and further in view of Kageyama (USP 4144522).

Grude and Yong fail to disclose a step of storing a transmission data into a buffer for transmitting to the receiving node and using ARQ method; However, in the same field of endeavor, Kageyama discloses a method of using an ARQ method for transmitting the data over

a transmission channel until it does not receive a notifying of data transmission error from the received station (Col 20-36).

Since a method of using ARQ for retransmitting the data blocks is well known in the art at the time of invention. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method of ARQ for retransmitting the data blocks when an error occurs as taught by Kageyama's system into Grude and Yong's system. The motivation would have been to control the occurrence of an error in data transmission between the transmitting and receiving sides.

6. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grude and Yong as applied to claim 8 above, and further in view of Huebner (USP 3798608).

Grude and Yong fail to disclose a claimed invention. However, in the same field of endeavor, Huebner discloses in the event of error the data are modified by a logic inversion before retransmitting (Col 7, lines 57 to col 8, lines 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method of detecting an error in the transmitted data, modifying the transmitted data by a logic inversion before retransmitting the data as taught by Huebner's system into the Grude and Yong's system. The motivation would have been to reduce the retransmitted data if error occurs during the transmission.

7. Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grude and Yong as applied to claim 8 above, and further in view of Cioffi (USP 5625651).

Grude and Yong fail to disclose the claimed invention. However, in the same field of endeavor, Cioffi discloses a method of selecting a carrier frequency of DTM for synchronization with frequency powered signal to reduce interference (Col 5, lines 1-26).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a teaching of Cioffi such as selecting a carrier frequency according to the powered signal to reduce the interference into Grude and Yong's system. The motivation would have been to coordinate and reliably interpret signals sent from the remotes.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grude and Yong as applied to claim 8 above, and further in view of Bowman (USP 5151896).

Grude and Yong fail to disclose the claimed invention. However, in the same field of endeavor, Bowman discloses a method of allowing the TDM being carried out synchronously on the two wire lines with a result that either transmission or reception is performed simultaneously on the two wire lines (Col 14, lines 47-62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method of allowing a station to transmit or reception simultaneously as taught by Bowman into Grude and Yong's communication system.

Response to Arguments

9. Applicant's arguments with respect to claims 8 and 11 have been considered but are moot in view of the new ground(s) of rejection.

10. Applicant's arguments filed 5/7/2002 have been fully considered but they are not persuasive.

In pages 1-2, the applicant states that the new added figure 3 and Paragraphs of page 6, lines 12, page 7, lines 4 and page 9, lines 22 are not new matted. In reply, the examiner does not see the applicant reword figure 2 or paragraph. Instead, the applicant adds a new figure, which is never disclosed and amended the specification to add this new figure. So, it is a new matter.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (703) 308-8848. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on (703) 308-6602. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Steven HD Nguyen
Examiner
Art Unit 2665
May 22, 2002

HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600